1. Nature – without aid from humans– has accomplished geologic isolation of dangerous materials for billions of years (e.g. Oklo).

2. Engineered geologic isolation has been accomplished during the past 50 years in facilities world-wide that either used to operate or continue to do so in the present.

I first visited a deep geologic repository for waste containing dangerous materials with infinite half-lives in 1973. I have since then contributed numerous articles, presentations, and one book (as editor) to the technical and scientific literature on related subjects.
I published a review article in the Journal "Progress in Nuclear Energy" [Volume 49 (2007) 365-374] about former and still existing repositories. Information on the book “Deep Geologic Repositories” I edited (published by the Geological Society of America) is available at http://books.google.com/books?id=wAHdBDxJXrgC&printsec=frontcover&dq=Rempe,+repositories&source=bl&ots=CmwSZoMkEZ&sig=X66rP6rptdaUfenmIrNkLkCbYi0&hl=en&ei=1rSVS4u1CZCCNKiPuIIK&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAYQ6AEwAA#v=onepage&q=&f=false

and at
http://www.geosociety.org/bookstore/default.asp?oID=0&catID=11&pID=REG019

3. If and when you consider estimates of remaining uranium or thorium resources, please keep in mind that the history of forecasting the availability of any mineral resource is dismal.

According to professional estimates, the world should have run out of petroleum and many other natural resources within 20-30 years of any prognosis ever published. For supporting references I recommend the books by the late Julian Simon and the more recent book by Steven M. Gorelick: "Oil Panic and the Global Crisis." We simply never know how much we have; but if history is any guide, we always have much more than we estimate.

4. When addressing anything nuclear or radioactive, please look beyond current regulatory straitjackets on radiation protection and evaluate real risk v. benefit, real v. assumed regulatory risk, and absolute v. relative risk. Let yourselves be guided by the advice from Bruce N. Ames: "Putting huge amounts of money into minuscule hypothetical risks damages public health by diverting resources and distracting the public from major risks."

When considering disposal of high-level radioactive waste, keep an open mind about the Waste Isolation Pilot Plant (WIPP).

5. I have not been able to find a convincing scientific or technical reason why WIPP could not host heat-generating waste in addition to transuranic waste. The Germans, before their past government decided to get out of nuclear energy, were unable to identify any convincing flaw to dismiss their Gorleben salt dome site. WIPP is situated close to the principal potash mines in the U.S, two of which intercepted an igneous dike that offers a local natural analogue for the behavior of a heat source inside rock salt. The 1961 Gnome underground nuclear test near WIPP has not released any radioactive contaminants in almost 50 years.

I offer you continued assistance to the best of my ability.

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